CHAPTER 2 USING FOOD-BASED MENU PLANNING APPROACHES

As discussed in the previous chapter, the two food-based menu planning (FBMP) approaches are **Traditional and Enhanced**. Both use meal patterns as menu planning tools, and both require specific food components in specific quantities.

These meal patterns are similar to the food groups of the Food Guidance System in which various foods have been grouped together based upon their nutritional contribution to our diets. Visit the website http://www.mypyramid.gov for additional information on the food guidance system, *MyPyramid*.gov.

The majority of SFAs/schools continue to use a food-based menu planning approach to plan their school meals because they feel the advantages outweigh the disadvantages.

SFAs/schools using one of the FBMP approaches can meet SMI nutrient targets if they are familiar with meal pattern requirements and *incorporate certain practice-based strategies* in menu planning, food purchasing and the preparation/service of food.

Since USDA has provided numerous program aids and guides to SFAs/schools that are using food-based menu planning approaches, this publication does not include an extensive discussion of these.

Basic requirements for these two food-based menu planning approaches are provided in program regulations (7CFR 210.10 (k) and 220.8 (g) and Chapter 2 of *A Menu Planner for Healthy School Meals.* Also, refer to USDA's *Offer Versus Serve* resource guide on how to implement offer versus serve in FBMP.

Advantages and Disadvantages to Implementing Food-Based Menu Planning Approaches

Before you make the decision as to which menu-planning approach is best for your schools, you need to consider all aspects. This chart presents some of the identified advantages and disadvantages of the two food-based menu planning approaches.

Advantages
• **Ease in Transition.** The familiarity and structure of meal patterns eases the transition to incorporating healthier practices to meet the SMI requirements. Students and cashiers understand the requirements for a reimbursable meal and OVS. • **No Computer Costs.** There are no additional costs involved in the purchase and support of computer hardware and USDA-approved software. • **No Special Computer Skills Needed.** Special computer skills or time for data entry and analysis is not required. • **Minimal Staff Training Needs.** Because of familiarity with meal patterns**,** staff training needs are minimized. • **Linked to the USDA Food Guidance System.** It's easier to use school meals as a link to classroom nutrition education because they are modeled after the Food Guidance System. • **Analysis Conducted by the State agency.** The State agency performs the nutrient analysis as part of the SMI review for a pre-determined week's menu. This can be your baseline for identifying areas to improve. • **Focus on Whole Foods.** Food-based menu planning approaches emphasize "whole foods" rather than highly fortified foods.
Disadvantages
• **Less Flexible in Initial Menu Planning.** Structured meal patterns with specific food components and quantities may be less flexible for menu planning and more difficult to customize for specific populations. • **Nutrient Levels are Unknown Until Nutrient Analysis is Conducted.** It is difficult to determine if the nutrient targets are being met without computer analysis.

How the Two Food-Based Menu Planning Approaches Differ

Traditional Food-Based Menu Planning

- The Traditional Food-Based Menu Planning approach requires specific food group components in specific amounts for defined established age/grade groups.

- Additional servings of fruits/vegetables and lowfat grains/ breads may be needed to meet the calorie level requirements while limiting total fat and saturated fats for the age/grade groups.

Refer to Appendix B and C for the Traditional Food-Based Menu Planning approach meal patterns for breakfast and lunch.

Enhanced Food-Based Menu Planning

- Like the Traditional approach, the Enhanced Food-Based Menu Planning approach requires specific food components in specific amounts for defined age/grade groups.

- In addition, Enhanced Food-Based Menu Planning also requires:
    - *Increased* portion sizes and amounts of vegetables/fruits and grains/ breads.
    - *Different* established age/grade groups than Traditional.

Refer to Appendix D and E for the required Enhanced Food-Based Menu Planning meal patterns for breakfast and lunch.

Key: Residential Child Care Institutions (RCCIs) using a food-based menu planning approach may find the grains/bread requirement charts, Appendices G-1 and G-2, useful in calculating the additional number of required grains/breads serving per week for up to a seven day per week foodservice operation.

Key: Both food-based menu planning approaches require that sodium and cholesterol be decreased, along with increased amounts of fiber, in school meals to meet the *Dietary Guidelines*.

Key: Special attention must be paid to increasing grains, fruits, and vegetables to replace the calories lost by reducing the fat.

Available Lunch Modifications to Food-Based Menu Planning

Program regulations permit three specific kinds of modifications to allow food-based menu planning to be more flexible in menu planning.

1. Modification to the Meat/Meat Alternate for Traditional and Enhanced FBMP

Available to both the Traditional and Enhanced Food-Based Menu Planning approaches, this modification allows flexibility in planning the meat/meat alternate component for school lunches on a daily basis.

The required minimum quantities of the meat/meat alternate component may be offered as a **weekly** total. A minimum **daily** serving is a **one-ounce serving** (or its equivalent for certain meat alternates).

For example: The total weekly requirement of meat/meat alternate for the Traditional approach is 10 ounces, for grades 4–12. The following chart illustrates how the daily portion sizes can vary.

Monday	***Tuesday***	***Wednesday***	***Thursday***	***Friday***	***Total***
2 oz	1 oz	3 oz	1 oz	3 oz	10 oz*

*Note that the weekly amount for the meat/meat alternate is 10 ounces, which meets the weekly requirement.

2. Modification for Portion Sizes and Nutrient Levels for Traditional FBMP

This modification is available to the Traditional Menu Planning approach only.

For grades K-6, SFAs/schools may use:

- Portion sizes for the meal pattern for Group IV (grades 4–12) and
- Nutrient levels for grades K-6 (from the Enhanced Food Based).

For grades 7-12, SFAs/schools may use:

- Portion sizes for the meal pattern for grades 4–12 and
- Nutrient levels for grades 7-12.

This approved modification allows SFAs/schools to vary nutrient levels to better meet the nutrition needs of specific groups of students.

For example:

Grades	***Portion Sizes***	***Nutrient Levels***
K–6	Portion sizes for the meal pattern for grades 4–12	Nutrient levels for grades K–6
7–12	Portion sizes for the meal pattern in grades 4–12	Nutrient levels for grades 7–12

3. Modification for the Majority of Children for Traditional and Enhanced FBMP

This modification is available to both Traditional and Enhanced Food-Based Menu Planning approaches.

If **only one age or grade** is outside the established levels, SFAs/schools may use the meal pattern portion sizes and the nutrient standards for the majority of children.
For example:

Traditional Food-Based Menu Planning Approach:

School w/ Grades	***Portion Sizes***	***Nutrient Levels***
K–4*	Portion sizes for the meal pattern for grades K-3	Nutrient levels for grades K-3
Preschool–Grade 3**	Portion sizes for the meal pattern for K-3	Nutrient levels for grades K-3

*A majority of children are in grades K – 3
** A majority of children are in grades K – 3

Enhanced Food-Based Menu Planning Approach:

Grades	***Portion Sizes***	*Nutrient Levels*
6-12*	Portion sizes for grades 7-12	Nutrient levels for grades 7-12
Preschool-Grade 6**	Portion sizes for K-6	Nutrient levels for grades K-6

***A majority of children are in grades 7 - 12
** A majority of children are in grades K –6

If more than one age/grade group is outside the established levels of the grade grouping, an SFA/school must use *two* meal patterns and nutrient standards. However, the SFA/school always has the option of serving Group IV (Grades 4-12) for all students in the school district/school under the Traditional Food-Based Menu Planning approach for lunch. Although the regulations allow this—from a nutritional perspective it is not advised.

Key: The broader the range of age/grade groups, the more likely younger children will receive more calories than needed and older children will receive insufficient calories and nutrients

Key: State agencies (SA) may require prior approval for these modifications or may establish guidelines for using these modifications. Always consult with your SA prior to adopting any of these modifications.

How to Structure Your Food-Based Menus

The two food-based approaches allow the menu planner to:

- Plan menus based on the food groups of the Food Guidance System, which is a familiar tool that students understand—especially when linked to nutrition education.
- Use a variety of nutrient dense food items within the food groups to meet the component meal pattern requirements including food or theme bars that increase choices, variety, vitamins, minerals, and phytochemicals.

Key: Phytochemicals, also called phytonutrients, are substances that plants naturally produce to protect themselves against bacteria, viruses, and fungi. Studies indicate that many of these plant chemicals can reduce the risk of certain diseases such as cancer. Fruits, vegetables, whole grains, beans and nuts are all important sources of phytochemicals. Many of these substances are associated with bright colors so fruits and vegetables that are brightly colored contain substantial amounts. Examples of phytochemicals are carotenoids and flavonoids.

The structure of the menus planned with either of the food-based approaches is determined by the appropriate meal pattern. You can develop your own individualized menus while incorporating the required food components/items. You should plan a *variety* of foods over the menu cycle. When planning your menus, you should consider:

- Your students' tastes.
- Your staffing skills.
- Availability of kitchen facilities and equipment.
- Your budget.

Key: Provide menu choices. This increases menu appeal and therefore increases participation. It also allows you to place new food items on your menu for children to try, without a loss in your school meal participation

Selecting the Right Age/Grade Grouping for Your Food-Based Menus

You must select the appropriate age/grade group(s) or meal patterns for your SFA/school before developing your menus. This will determine the portion sizes of the various food items.

This step ensures that the students who fall within the specific age/grade groups will be served meals that meet their specific nutritional needs. This includes both the younger and older students who are within the age/grade groups.

Key: When planning menus, your first concern must be the nutritional well-being of the students. This is best accomplished by offering appropriate quantities for the populations you serve. A single meal pattern or portion size will not meet the nutritional needs of all children. Also, remember: *age/grade groups are different for each of the two food-based approaches.*

Lunch

Traditional Meal Patterns
Established Grade Groups

- Preschool
- Grades K-3
- Grades 4-12
- Optional Grades 7-12

Enhanced Meal Patterns
Established Grade Groups

- Preschool
- Grades K-6
- Grades 7-12
- Optional Grades K-3

Breakfast

Traditional and Enhanced Meal Patterns
Established Grade Groups

- Preschool
- Grades K-12
- Optional Grades 7-12 for Enhanced Food-Based Menu Planning

Serving the Appropriate Portion Sizes for Your Food-Based Menus

- Meal patterns for both the Traditional and the Enhanced Menu Planning approaches provide the **minimum** amounts that you must serve for a particular age/grade group.

- SFAs/schools may choose to offer the portion sizes required by the older students to all age/grade groups in one school. However, from a nutritional perspective, this is not encouraged.

- You should use the appropriate portion sizes for students so that meals target the nutritional needs of your students—smaller portions for the younger children and larger portions for the older children.

- Varying portions for the different grade groups can also be a management tool. By providing smaller age-appropriate portions to your younger students you can decrease plate waste in the lower grades, and redistribute these savings by providing the larger portions required by older students.

Key: A USDA study conducted at the Children's Nutrition Research Center in Houston, Texas, indicated that preschool children consume more food when served larger portions than needed–a serious concern with the prevalence of childhood obesity

The following chart indicates what it takes for a school to fully implement a food-based menu planning approach. Answering "yes" to the following questions will help you determine if your SFA/school can, or is, effectively implementing either of the food-based menu planning approaches.

What Does it Take to Implement a Food-Based Menu Planning Approach? - A Self-Evaluation Review

Procedures	Yes	No
Are reimbursable meals served at the point of service?		
Meals offered contain the required food items and the portion sizes appropriate to the meal pattern(s) used for menu planning. To ensure that reimbursable meals are served: • Train foodservice staff to prepare and serve reimbursable meals. • Train students to select reimbursable meals. • Train cashiers to recognize and count reimbursable meals.		
Is portion/serving size control being used?		
Portion/serving size control: • Ensures that standardized recipes give consistent yields. • Ensures that the nutritional contribution of the portion is consistent from serving to serving and day to day. • Ensures that each age/grade group is served the correct portions of foods as planned. • Ensures that meals are reimbursable. • Ensures that food costs are consistent.		
Is Offer Versus Serve implemented correctly?		
Reimbursement for meals is based on each meal claimed meeting the required food component and quantity requirements. • School foodservice staff, including cashiers, should have continuous training on Offer Versus Serve implementation. • Serving line instructions are provided to students regarding the selection of reimbursable meals. • Students are trained in the requirements of OVS.		
Are food production records documented and maintained as required by regulations?		
• Daily production records document: - All food items served in a reimbursable meal - Recipes or food products used (note if a USDA recipe) - Number of reimbursable meals planned and served for each age/grade group - Planned/projected number of portions and serving sizes for each age/grade group - The types/quantities of food used to prepare the		

Procedures	Yes	No
meals (for example, number of servings, lbs, cans) - Actual number of reimbursable meals served (indicate this information for each age/grade group) - Leftovers or substitutions - Number of adult meals - Number of a la carte food items when part of a reimbursable meal* • This required documentation helps ensure that sufficient food has been prepared and served to students for each day of your menu cycle. • The State agency uses food production records during an SMI review to determine the nutritional content of the meals served to children and during a CRE Review to determine if reimbursable meals are served. • Check with your State agency to see if there is a State prototype food production form or refer to USDA's *A Menu Planner for Healthy School Meals* for examples of food production records. *Check with your State agency for their requirements on documenting a la carte food items (not part of a reimbursable meal) on the food production records.		
Are standardized recipes used?		
A standardized recipe: • Has been tried, adapted, and retried several times for use by a given foodservice operation. • Uses the exact procedures, the same type of equipment, and the same quantity and quality of ingredients each time. A standardized recipe, if followed correctly, will: • Produce the same quality and yield each time. • Contribute consistent meal pattern components each time. • Contribute consistent calories and nutrients to the meal each time.		
Are cycle menus used?		
Cycle menus are a set of established menus–containing the same menu items and choices–repeated on a periodic basis. While not required by regulations, cycle menus have these advantages: • Identify and offer popular foods. • Save time and allow your staff to become adept at production. • Achieve production balance. • Help you stay within the budget. • Assist in identifying menu changes needed to meet nutrition goals.		

Procedures	Yes	No
Are Child Nutrition (CN) Labels and/or Product Formulation Statements available?		
A CN Label must contain the following information: • Six-digit product identification number. • USDA/Food Nutrition Service (FNS) authorization and month and year of approval. • Meal pattern contribution for a specified serving size. A Product Formulation Statement must contain: • Product name and description. • Raw/cooked portion size. • Case pack. • Contribution toward the USDA meal pattern requirements. • Company name. • Signature of authorized company official. Before accepting and using a food product with a Product Formulation Statement (PFS), the PFS has been carefully reviewed to determine that the manufacturer's calculations are correct and reasonable and a thoughtful decision has been made to serve the product. Refer to Appendices H and I for examples of a CN Label and a Product Formulation Statement.		
Is nutrition information available for all commercially prepared food products?		
Nutrition information on commercially prepared products is necessary: • To compare products when purchasing. • To provide to State agencies for SMI reviews. • To conduct your own nutrient analysis, if applicable. Two documents that provide nutrition information are: • **Nutrition Facts Labels** - Nutrition Facts Labels provide nutrition information on the product and, while not required on institutional-sized food packaging, are found on many food product labels. • **Manufacturers' Data Submission Form** - When a Nutrition Facts Label is not provided for the product, you can require the manufacturer to complete a Manufacturer's Data Submission Form with the nutrient content of the product. Refer to Appendices J and K for copies of these two documents.		

Procedures	Yes	No
Are there written descriptions on all food products?		
Food specifications, or descriptions, are important not only for procurement but for selecting the appropriate food in the database when a nutrient analysis is conducted.		
Are all foodservice staff provided with ongoing training on serving healthy meals?		
All foodservice staff must be trained to do their part in serving healthy meals to students – from menu planning; procurement; food production (including use of standardized recipes and portion control) to correctly implementing Offer Versus Serve.		

If you have answered "no" to any of the above questions, contact your State agency for training and technical assistance in the appropriate areas.